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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/623,264	07/18/2003	Chia-Hua Chou	MTKP0720USA	3497
27765 7590 12/18/2008 NORTH AMERICA INTELLECTUAL PROPERTY CORPORATION P.O. BOX 506 MERRIFIELD, VA 22116				
EXAMINER HALEY, JOSEPH R				
ART UNIT		PAPER NUMBER		
2627				
NOTIFICATION DATE		DELIVERY MODE		
12/18/2008		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary**Application No.**

10/623,264

Applicant(s)

CHOU ET AL.

Examiner

JOSEPH HALEY

Art Unit

2627

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 September 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/CDC)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over
Gushima et al. (US 2001/0038586) in view of Kodama (US 5606468).

In regard to claim 1, Gushima et al. teaches a first controller adapted to couple to a laser diode driver and to cause a laser diode driver to provide signals to drive the laser diode (fig. 4 elements 602), a second controller capable of testing a channel between the optical drive controller and a laser diode driver and, in response to testing a channel between the optical drive controller and the laser diode driver, generating a set of calibration signals to program a drive characteristic associated with the laser diode driver to accommodate a characteristic of a channel between the optical drive controller and the laser diode driver (fig. 4 element 601) the set of calibration signals responsive to the timing characteristics tested by the optical drive controller (see paragraphs 83 and 84) wherein the electrical channel tested by the optical drive controller does not include an electrical path between the laser diode driver and the laser diode (The electrical path ends at the laser diode and becomes an optical path. The electrical path begins again at the photodiode); however, does not teach wherein the controllers are in a signal optical controller.

Kodama teaches wherein two controllers are in a single module (fig. 1 elements 2a and 2b see also column 4 lines 48-51).

At the time of invention it would have been obvious to one of ordinary skill in the art to provide the apparatus of Gushima et al. with the single integrated controller of Kodama. The rationale is as follows: At the time of invention it would have been obvious to provide the apparatus of Gushima et al. with the single controller of Kodama because it would reduce the size of the apparatus (see also MPEP 2144.04 Section V. Paragraph B).

In regard to claims 2, 9 and 12 Gushima et al. teaches the first controller outputs one or more electrical test signals to the laser diode driver, through the electrical channel between a laser diode driver and the controller (fig. 4 element 602), the second controller receiving one or more monitor signals generated by the laser diode driver in response to the one or more electrical test signals (fig. 4 element 601), the one or more electrical monitor signals received through the electrical channel between the laser diode driver and characterizing the timing characteristics of the electrical channel and the second controller the second controller generating one or more calibration signals responsive to the one or more monitor signals (see paragraphs 83 and 84).

In regard to claims 3, 7 and 11 Gushima et al. teaches a first control signal to set a laser diode driver in a calibration mode for a calibration process and generates a second control signal to set a laser diode driver in a normal operation mode (Gushima et al. would have a signal to turn on the test mode and to turn on the regular mode).

In regard to claim 4, Gushima et al. teaches wherein the calibration signals adjust circuits within the controller (fig. 4 element 112).

In regard to claim 5, Gushima et al. teaches wherein the calibration signals adjust circuits within the laser diode driver (see paragraph 97).

In regard to claim 6, Gushima et al. teaches the first controller outputs a test signal to a laser diode driver, the second controller receiving a monitor signal generated in response to the test signal, another controller outputting a second test signal, responsive to the monitor signal, for calibrating a laser diode driver in an iterative process (see element 110 and paragraphs 50 and 51).

In regard to claim 8 (see claim 1 rejection above), Gushima et al. also teaches WSR channels (Gushima et al. teaches channels that carry read/write signals).

In regard to claim 10, Gushima et al. teaches all the elements of claim 10 except the use of a flexible cable.

The examiner takes Official Notice that use of a flexible cable is old and well known and would have been obvious to use. The rationale is as follows: At the time of invention it would have been obvious to one of ordinary skill in the art to provide the apparatus of Gushima et al. with a flexible cable because the optical pick up frequently moves (Since it was not argued by the applicant that a flexible cable is not old and well known it will be considered a fact).

In regard to claim 13, Gushima et al. teaches a communication port configured in the laser diode driver to receive a control signal from the optical drive controller (it is

inherent there would a communication port because if not there would be no way to send and receive information).

Response to Arguments

Applicant's arguments filed 9/25/08 have been fully considered but they are not persuasive. Applicant argues on page on page 8 that Gushima et al. does not teach wherein the electrical channel tested by the optical drive controller does not include an electrical path between the laser diode driver and the laser diode. The examiner maintains this rejection because Gushima et al. teaches testing the response time of a test pulse from the test pulse generator 602. The test pulse generator sends a signal to the laser driver which then outputs a drive signal to the laser. The laser sends out a light beam which is then reflected off the optical disc and onto the photodetector. The claim states that the channel tested does not include an electrical path between the diode and the driver. There is no electrical path between the diode and the driver in the channel tested because the diode and the photodetector are optically coupled. This optical coupling stops the electrical feedback between the diode and the driver.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOSEPH HALEY whose telephone number is (571)272-0574. The examiner can normally be reached on M-F 8:30am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Feild can be reached on 571-272-4090. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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